ORIGINAL



320



Distributed Energy Association of Arizona 5401 N. 25TH STREET Phoenix, AZ 85016

RECEIVED

· 2006 SEP 27 P 2: 04

AZ CORP COMMISSION DOCUMENT CONTROL

SEPTEMBER 27, 2006

Arizona Corporation Commission DOCKETED

SEP 27 2006

DOCKET CONTROL
Arizona Corporation Commission
1200 W. Washington
Phoenix, AZ 85004

DOCKETED BY NO.

SUBJECT: Rebuttal Testimony of AzCA/DEAA under Docket # E-01345A-05-0816

Dear Sir or Madam:

E-01345A-05-0826

E-01345A-05-0827

Attached is the Rebuttal Testimony of witness William J. Murphy for the Arizona Cogeneration Association d/b/a Distributed Energy Association of Arizona. If you have any questions,, you can email me at billmurphy@cox.net or phone me on (602) 703-8163.

Sincerely:

willing Mayor

William J. Murphy P.E. DEAA

Cc Docket Control (original plus 13 copies)
Parties of Record (by email)

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

JEFF HATCH-MILLER, Chairman WILLIAM A. MUNDELL MIKE GLEASON KRISTIN K. MAYES BARRY WONG

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A HEARING TO DETERMINE THE FAIR VALUE OF THE UTILITY PROPERTY OF THE COMPANY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RATE OF RETURN THEREON, TO APPROVE RATE SCHEDULES DESIGNED TO DEVELOP SUCH RETURN, AND TO AMEND DECISION NO. 67744

DOCKET NO. E-01345A-05-0816

Rebuttal Testimony of

William J. Murphy

on behalf of Distributed Energy Association of Arizona

Docket No. E-01345A-05-0816

September 27, 2006

REBUTTAL TESTIMONY OF WILLIAM MURPHY 0 DOCKET NO. E-01345A-05-0816

1	Rebuttal Testimony of William J. Murph	y
2	Docket No. E-01345A-05-0816	
3		
4		
5	Table of Contents	
6		
7	Introduction	1
8		
9	Discussion of RUCO testimony	1
10		2
11	Discussion of Staff testimony	2
12	7 DG (1)	3
13	Comparison of utility vs. DG rate treatment	3
14	D' Chamas afaileaite	3
15	Discussion of terms of velocity	J
16	Common of Decommondations	4
17	Summary of Recommendations	···•
18 19	List of Exhibits	5
20	List of Exhibits	
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		

1 2 3		Rebuttal Testimony of William Murphy on behalf of DEAA Docket No. E-01345A-050816
4		
5		INTRODUCTION
6 7	Q.	PLEASE STATE YOUR NAME AND YOUR BUSINESS ADDRESS?
8 9 10 11	A.	My name is William Murphy. My business address is 2422 E. Palo Verde Dr. Phoenix, Arizona 85016.
12 13 14	Q.	DID YOU PREVIOUSLY PROVIDE DIRECT TESTIMONY IN THIS DOCKET E-01345A -05-0816?
15 16	A.	Yes.
17 18	Q	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
19 20 21 22 23	A.	My testimony discusses three topics: 1) A review of parts of the Testimony of RUCO, Staff, and others on rate design. 2) A brief discussion of cents/kWh vs. usage. 3) Recommendations.
24 25	•	
26 27	Q.	DO YOU HAVE AN OPINION OF RUCO'S APPROACH TO RATE DESIGN?
28 29 30	A	Yes, I was pleased with the ideas that were presented in the testimony of Marylee Diaz Cortez. The 2 reasons given were as follows:
31 32 33		 "Since the need for a rate increase is primarily attributable to increased generation and fuel costs" Page 2 line 22-23. "it allows customers to mitigate the cost of the increase through conservation"
34 35 36		page 3 lines 4-5.
37 38	Q.	DO YOU HAVE AN OPINION ON HOW RUCO APPLIED THE APPROACH TO ACTUAL RATES?
39 40 41 42 43	A.	Unfortunately, on the General Service rate E-32, the approach appears to result in increases in demand charges (kW) and also demand related energy (kWh) costs that are contained in the expanding block, the block that states "\$0.07938 per kWh for the first 200 kWh per kW, plus \$0.04175 per kWh for all additional kWh"
44 45 46		The only part of demand charges that are fuel related are the difficult to understand "expanding block" discussed in the preceding paragraph.

i		
2	Q.	DO YOU HAVE AN OPINION ON THE STAFF WITNESS ERINN ANDREASEN
3		ON THE RATE DESIGN ISSUES?
4		
5 6	٨	Yes, I was also pleased with Ms. Andreasen's recommendations as follows:
7	A	1 es, 1 was also pleased with wis. Andreasen's recommendations as follows.
8		EAAr-6 and EAAr-7, these recommendations request a delay in the elimination of
9		rates E-21, E-22, E-23, & E-24.
10		These rates were originally intended to assist Houses of Worship and other customers
11		use energy primarily off-peak. Additionally, these Rates offer a choice to the
12		approximately 96% of all General Service customers that are on rate E-32. Equally
13		important these rate choices appeal to rate-payers that are small, medium, and large
14		sized customers. These rate choices partially solve the concerns raised in EAA
15		Recommendation -10, below.
16		
17		EAAr-10, this recommendation calls for Rate E-32 to be separated into small,
18		medium, and large categories. This is a long overdue action that could solve many
19		problems, including fairness, understandability, cost following, and others.
20		
21		EAAr-10a, this recommendation is my suggestion to pair the split up of rate E-32
22		with a redesign of E-32TOU into size sensitive rates similar to E-21, E-22, E-23, & E-24.
23 24		E-24.
25		
26	Q.	ARE THERE ANY RECOMENDATIONS BY MS. ANDREASEN AND MS. DIAZ
27	٧.	CORTEZ THAT YOU WILL NOT PRESENT AN OPINION?
28		
29	A.	Yes.
30		
31		
32	Q.	ARE THERE ANY RECCOMENDATIONS BY MS. ANDREASEN WITH WHICH
33		YOU DO NOT AGREE?
34	A.	Yes, there are 2 recommendations that cause concern;
35		
36		EAAr-13 the entire subject of landlords selling energy to tenants needs to be
37		discussed more fully. Some very large customers have in the past considered these
38		sales as a service and opportunity for the benefit of both the landlord and tenant.
39		These customers are GS customers with large (>1000 kW loads)
40 41		EAAr-21 This recommendation covers a Demand-Management study by APS. This
42		runs head-on into the Utilities desire to maintain its Revenue Stability.
43		runs nead-on into the Othities desire to maintain its Neventic Statinty.
43 44		This study is a fair idea, but I personally can't handle the thought of another
45		workshop.
46		······································

1 2	Q.	PLEASE DESCRIBE HOW A CUSTOMER FUNDED DG UNIT WOULD BE ALLOWED TO OPERATE WITH THE SAME ECONOMIC RULES THAT
3		APPLY TO RATE-PAYER FUNDED UTILITY POWER PLANTS?
5	A.	The answer to this question breaks down into Demand and Energy components:
7		1) DEMAND: There will no economic penalty for outages (unavailability) unless
8		negligence by the operator can be proven. Otherwise there are no demand or standby
9		charges/penalties during normal operation.
10		
11		2) ENERGY: On the energy side the rate-payers will contribute 90% of the cost of
12		replacement energy. The DG owner will have to pay only 10% of these energy
13		costs.
14		
15		
16	_	DIELGE DEGCRIDE HOW A MINIMUM BOWER DE ANT WOLLD DE ALL OWER
17	Q.	PLEASE DESCRIBE HOW A UTILITY POWER PLANT WOULD BE ALLOWED
18		TO OPERATE WITH THE SAME ECONOMIC RULES THAT APPLY TO
19		CUSTOMER FUNDED DG POWER PLANTS?
20		
21 22	A.	The answer to the question breaks down into Demand and Energy components:
23		1) DEMAND Charges will be such that any plant capital recovery allowed for that
24		particular month will be zero if the Capacity Factor falls below 99.96% (a very high
25		C.F.)
26		This zero cost recovery will not be forgiven no matter what is the reason for the
27		failure.
28		iditure.
29		2) ENERGY the Utility Stockholders shall be expected to pay for 100% of all
30		energy use that results from any plant outage. No matter what the cause,
31		Rate-payers will not contribute anything to the cost of the replacement energy.
32		See Exhibit WJM -3 for an outline of the DG rate choices.
33		
34	Q.	YOU MENTIONED EARLIER THAT THERE WERE EXAMPLES OF
35		TECHNICAL TERMS THAT DESCRIBE VELOCITY - ARE THERE OTHER
36		TERMS TO MEASURE RATE OF SPEED?
37		
38	A.	Yes I mentioned earlier in my direct testimony that utility customers were familiar
39		with the term for speed "miles per hour". But there are other terms such as "Furlongs
40		per Fortnight" to measure speed. The equivalent term for 60 MPH would be 162,510
41		furlongs per fortnight. I don't think there would be much understanding of FPF. It is
42		not as difficult to understand as kilowatt, but it is in the chase.
43		
44		

		DOCKET 110. E-01343/1-03-001
1 2 3	Q.	WOULD YOU SUMMARIZE YOUR RECOMENDATIONS AND HOW THEY MESH WITH OTHER WITNESS'S THAT DISCUSSED RATE DESIGN.
4 5 6 7 8	A	The most important consideration is that the rates begin to reflect the new higher fuel (Energy) prices, and lower capitol costs (Demand). This is the basis for our Direct Testimony recommendation that general service DG customers utilize a rate similar to the SRP E-32TOU. (See attached Exhibit WJM-5)
9 10 11 12		We recommend also that rates begin to truly reflect the differences in system costs between summer and winter, Day and Night, the peak seasonal hours. (See Attached Exhibit WJM-4)
13 14 15 16		We recommend that the commission review the trend that greater energy usage results in lower cents/kWh. (see Exhibit WJM -2) These current rates appear to reflect the capital/fuel cost relationship that existed in the early 1990's.
17	Q.	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	A.	Yes.
40 41 42		
4.5		

REBUTTAL TESTIMONY OF WILLIAM MURPHY 5 DOCKET NO. E-01345A-05-0816

1		ATTACHMENTS
2 3		
4	WJM-2	Rate Class 6.6
5	TT 777 6 0	DARGIAL DECLUDER CONTRO
6	WJM -3	PARTIAL REQUIREMENTS
7 8	WJM -4	RES, GS, TOU RATES
9		
10	WJM -5	BusE321105.pdf
11		
12 13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

	rate class 6.6	-							2	Schedule H-2, 51 (SJB-3)& K	1. this base data from APS Schedule H-2, 2. ROR index from APS09951 (SJB-3)& KCH-1
8	100% \$2,340,054,200	100%			30,767,951,000				100%	7.6	TOTAL TOTAL
O	\$212,732,200	10%	٠,>		4,254,644,000	~			155%	5.0	RESALE
0	\$2,127,322,000 100%	100%			26,513,307,000	26,601 0		996,687	89%	8.0	Cust Adj TOTAL RETAIL
O	\$6,423,000	0%			27,037,000				199%	23.8	DUSK to DAWN
00000	\$6,208,000 \$6,281,000 \$159,000 \$697,000 13,345,000	00000	23% 64% 4% 9% 100%		27,332,000 73,953,000 4,384,000 10,750,000 116,419,000	48,461 401,918 20,876 275,641 116,769	57% 18% 21% 4% 100%	564 184 210 39 997	71%	22.7 8.5 3.6 6.5 11.5	E-58 E-59 E-67 cop Contract Total
000	\$620,000 \$20,244,000 20,864,000	1 1 0 % %	3% 97% 100%		8,779,000 283,860,000 292,639,000	199,523 199,620 399,143	3% 97% 100%	44 1,422 1,466	320%	7.1 7.1 7.1	IRRIGATION/PUMPING E-38,E-38-8T,E-38TOW E-221,E-221-8T,E-221TOW Total OUTDOOR LIGHTING
	\$843,836,000 \$144,000 \$66,719,000 \$67,661,000 \$1,000 \$666,000 997,139,000	41% 0% 54% 55%	79% 0% 9% 10% 0% 100%		10,879,043,000 1,849,000 1,183,145,000 1,381,619,000 0 10,718,000 13,714,560,000	105,385 616,333 31,135,395 72,716,789 0 5,359,000 7 127,265	96% 0% 0% 0% 0% 100%	103,231 3 38 19 1 1 2 107,764	137% 3% -3% 135%	7.8 5.6 4.9 6.2 7.3	E-32,E-32R,E-53,E-6? E-32 TOU E-34 E-35 E-40 E-51 G S TOTAL
		0%		0 0%	0 00	0 00	87% 4% 0%	89,976 8 4,042 162	168% 211% 211% -7%		E-32 very small(0-20kW) E-32 small (21-100kW) E-32 medium(101-400kW) E-32 medium (401-999kW) E-32 large(1000 + kW)
00000	\$3,587,000 \$133,000 \$339,000 \$3,324,000 \$9,784,000 \$945,000	01000	0% 0% 1% 0%		39,565,000 1,631,000 3,658,000 42,679,000 164,984,000 5,669,000	113,367 65,240 215,176 296,382 3,666,311 1,457	0 % 0 % 0 % 4 %	349 25 17 144 45 3,890	292% 123%	9.1 9.3 7.8 5.9	GENERAL SERVICE E-20 E-21 E-22 E-23 E-24 E-30
Total \$	Revenues \$68,113,000 \$372,438,000 \$35,431,000 \$510,800,000 \$102,769,000 1,089,551,000	%%%%% <u>*</u>	% kWh 6% 30% 49% 110%), 20 ₀	TY ENDING SEPT 30, 2005, ADJUSTED **Total kWh 747,414,000 3,768,884,000 455,200,000 49% 6,018,067,000 12,362,652,000 100% 47'	, kWh 9,546 9,149 21,843 18,289 29,639 13,946	DISTRIBUT % of yor total 9% 46% 2% 37% 100%	APS RATE DISTRIBUTION % of % of Avg Customers total Av 78,292 9% 411,939 46% 20,840 2% 329,062 37% 46,327 5% 886,460 100%	% % % % % % %	ROR cents/kWh Index 9.1 49.0 9.9 109.0 7.8 15.0 8.5 28.0 7.5 -2.0	RESIDENTIAL E-10 E-12 EC-1 ET-1 ECT-1R TOTAL

rate class 6.6

partial req 9/21/06	pages	ON-PEAK	SUPPLIMENTAL	MAINTENANCE kWh- on-p kWh- off-p	PENALTY \$/kW	kWh- on-p kWh- off-p LIMIT on standby ene	kW	kWh- on-p kWh- off-p	kW summer"FOR"	RATE
	4	11:00A - 9:00P	E-32 or E-34	0.03540 0.02142 0.02320		kWh- on-p \$0.03540 \$0.03271 0.01870 kWh- off-p \$0.02320 \$0.02142 0.01250 LIMIT on standby energy - over 250kWh/kW is on supplemental rate	WINTER \$4.50 \$4.16	\$0.04980 \$0.04602 \$0.02320 \$0.02142	OR" \$4.50 \$4.16	E-51 5/27/1994 4/1/2005 SUMMER \$32.00 \$33.58
	5	9:00A to 9:00P	E-32 or E-34	0.01870 0.01350	\$13.84	0.01870 0.01250 upplemental rate	WINTER \$7.29	\$0.02130 \$0.01540	\$7.29	E-52 3/1/1996P 4/1/2005 SUMMER \$123.85 \$123.83
	8			0.02537 0.01006	\$12.50	0.02537 0.01006	ER \$6.59	\$0.02961 \$0.01574	\$6.59	4/1/2005 ER \$123.83
	5	\$2,430.00	E-34 Or E-35	\$0.01930 \$0.01390	\$15.11	\$0.01930 \$0.01390	WINTER \$6.98	\$0.02080 \$0.01470	\$6.98	E-55 3/1/1996P 4/1/2005 SUMMER \$1,733.90 \$1,733.90
	10	34.4/36 12.343		\$0.02605 \$0.01033	\$21.28	\$0.02605 \$0.01033	ER \$6.77	\$0.03040 \$0.01616	\$6.77	4/1/2005 MER \$1,733.90
						first last		first last		
	1+2		E-32 or E-34	see above see above	\$7.00	\$0.10157 \$0.04351		\$0.11275 \$0.04866	\$7.00	E-3: 7/1/1996 4/: SUMMER \$12.50
	ま		Z	see above see above see above see above see above	\$11.00	\$0.06945 200kwh/kw \$0.03182 remainder		\$0.11275 \$0.07938 200kwh/kw \$0.04866 \$0.04175 remainder	\$11.00	E-32R 7/1/1996 4/1/2005 SUMMER \$12.50 \$34.49
				above)kwh/kw nainder)kwh/kw าainder		

TIME OF USE (TOU) RATES EC-1, ECT-1R, ECT-2, E-20, E-21,E-22, E-23, E-24, E-32TOU EFFECTIVE 5/1/2005

ON-PEAK HOURS WEEKDAYS RES, GS,TOU RATES 9/21/06	WINTER CENTS/kWh ON-PEAK WINTER CENTS/kWh OFF-PEAK	SUMMER CENTS/KWh ON PEAK SUMMER CENTS/KKh OFF-PEAK	WINTER \$/kWh/MO excess	SUMMER \$/KW/MO excess	BASIC SERVICE CHARGE	GENERAL SERVICE RATES	WINTER CENTS/kWh ON-PEAK WINTER CENTS/kWh OFF-PEAK HOURS	SUMMER CENTS/KWh ON PEAK SUMMER CENTS/KKh OFF-PEAK	WINTER \$/KW/MO (ON-PEAK)	SUMMER \$/KW/MO (ON-PEAK)	BASIC SERVICE CHARGE	RESIDENTIAL RATES
11:00A-9:00P	\$0.10820 \$0.05327	\$0.12305 \$0.05943	\$1.845 \$0.923	\$2.045 \$1.023	E-20 CHURCHES \$28.62		0.02978	0.03943	\$7.10	\$10.00	\$7.70	EC-1
11:00A-9:00P	\$0.10638 \$0.05237	\$0.12097 \$0.56430	\$1.810 \$0.905	\$2.010 \$1.005	E-21 > 100Kw \$28.1 4		0.03641 0.02570 9:00A-9:00P	0.04785 0.02672	\$8.11	\$11.81	\$15.00	ECT-1R
11:00A-9:00P	\$0.10285 \$0.06430	\$0.12125 \$0.07475	\$2.020 \$1.010	\$2.300 \$1.115	E-22 SMALL GS \$28.14		0.03730 0.02733 NOON -9:00P	0.05690 0.02792	\$8.11	\$11.81	\$16.67	PROPOSED ECT-2
11:00A-9:00P	\$0.07328 \$0.05237	\$0.08163 \$0.05843	\$5.820 \$2.910	\$6.410 \$3.205	E-23 MED GS \$60.47		\$0.10918 \$0.04169 9:00A-9:00P	\$0.13310 \$0.04299	\$0.00	\$0.00	\$15.00	ET-1
11:00A-9:00P	\$0.04723 \$0.03393	\$0.05283 \$0.03797	\$8.510 \$4.255	\$9.390 \$4.695	E-24 LARGE GS \$1,042.41		\$0.08703 \$0.05783 NOON -9:00P	\$0.18200 \$0.04519	\$0.00	\$0.00	\$16.67	PROPOSED ECT-2
11:00A-9:00P	\$0.03822 \$0.02822	\$0.04815 \$0.03815	\$7.972 RESIDUAL????? \$3.747 RESIDUAL????? \$15.112 FIRST 100 KW PLUS \$10.887 REMAINDER KW \$7.972 RESIDUAL????? \$3.747 RESIDUAL?????	\$15.112 FIRST 100 KW PLUS \$10.887 REMAINDER KW	E-32TOU 0 TO 3,000Kw \$34.49							

SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT

E-32

STANDARD PRICE PLAN FOR TIME-OF-USE GENERAL SERVICE

Effective: November 1, 2005 Supersedes: May 1, 2005

AVAILABILITY:

The E-32 Price Plan is subject to equipment availability.

APPLICABILITY:

To electric service supplied at one point of delivery and measured through one meter, for commercial, business, professional, small industrial, wind machines, and recreational facilities. This schedule is an alternative to the E-36 Price Plan. (See conditions.)

CHARACTER OF SERVICE:

Sixty hertz alternating current, three-phase or single-phase, at one standard voltage of approximately 120/240; 277/480; 2,400/4,160; or 7,200/12,000 volts, at the option of SRP.

CONDITIONS:

- A. On-peak hours from May 1 through October 31 consist of those hours from 2 p.m. to 7 p.m., Monday through Friday, Mountain Standard Time. Shoulder-peak hours consists of those hours from 11 a.m. to 2 p.m. and 7 p.m. to 11 p.m., Monday through Friday, Mountain Standard Time. All other hours are off-peak. On-peak hours from November 1 through April 30 consist of those hours from 5 a.m. to 9 a.m., Monday through Friday, Mountain Standard Time. Shoulder-peak hours consist of those hours from 5 p.m. to 9 p.m., Monday through Friday, Mountain Standard Time. All other hours are off-peak.
- B. Metering is at one point and such that kilowatts and kilowatt-hours or kilovolt-amperes and kilovolt-ampere-hours can be related to time-of-day.
- C. A customer may cancel service under this schedule and elect service under another General Service Price Plan. Cancellation becomes effective at the end of the billing cycle in which notice is received. The customer may not subsequently elect service under this price plan for at least one year after the effective date of cancellation.
- D. A customer requiring additional interconnection, metering, or other equipment beyond what is necessary for SRP to provide basic service applicable under this price plan will be required to pay SRP for the costs of such additional equipment.

E-32

Page 2
Published: 11/1/2005

PRICE PER METER:

Monthly Service Charge	
Billing and Collections	\$11.21
Meter	\$19.04
Meter Reading	\$7.06
Competitive Customer Service	<u>\$0.20</u>
Total	\$37.51

Summer May 1 - October 31

Per kW Charges (all kW)	On-Peak	Shoulder-Peak	Off-Peak
Distribution Delivery	\$1.75	\$0.03	
Transmission Delivery	\$2.89	\$0.33	
Competitive Customer Service	\$0.14	\$0.00	
Ancillary Services 1-2	<u>\$0.10</u>	<u>\$0.09</u>	
Total	\$4.88	\$0.45	

Winter November 1 - April 30

Per kW Charges (all kW)	On-Peak	Shoulder-Peak	Off-Peak
Distribution Delivery	\$1.23	\$0.02	
Transmission Delivery	\$2.36	\$0.24	
Competitive Customer Service	\$0.16	\$0.00	
Ancillary Services 1-2	<u>\$0.07</u>	\$0.05	
Total	\$3.82	\$0.31	

	Summer	Winter
	May 1 - October 31	November 1 – April 30
On-Peak kWh Charge		
Distribution Delivery	\$0.0391	\$0.0382
Transmission Delivery	\$0.0000	\$0.000
Ancillary Services 1-2	\$0.000	\$0.0000
Ancillary Services 3-6	\$0.0006	\$0.0006
System Benefits	\$0.0019	\$0.0019
Competitive Customer Service	\$0.0003	\$0.0002
Energy	\$0.0386	\$0.0336
Fuel and Purchased Power †	<u>\$0.0257</u>	\$0.0223
Total	\$0.1062	\$0.0968

E-32 Page 3

Published: 11/1/2005

	Summer May 1 - October 31	Winter November 1 – April 30
Shoulder-Peak kWh Charge	way i October 51	110101110011 11011100
Distribution Delivery	\$0.0275	\$0.0278
Transmission Delivery	\$0.0000	\$0.0000
Ancillary Services 1-2	\$0.0000	\$0.0000
Ancillary Services 3-6	\$0.0006	\$0.0006
System Benefits	\$0.0019	\$0.0019
Competitive Customer Service	\$0.0000	\$0.0000
Energy	\$0.0246	\$0.0231
Fuel and Purchased Power †	<u>\$0.0257</u>	<u>\$0.0223</u>
Total	\$0.0803	\$0.0757
Off-Peak kWh Charge		
Distribution Delivery	\$0.0000	\$0.0000
Transmission Delivery	\$0.0000	\$0.0000
Ancillary Services 1-2	\$0.0000	\$0.0000
Ancillary Services 3-6	\$0.0006	\$0.0006
System Benefits	\$0.0019	\$0.0019
Competitive Customer Service	\$0.0000	\$0.0000
Energy	\$0.0128	\$0.0124
Fuel and Purchased Power †	<u>\$0.0257</u>	<u>\$0.0223</u>
Total	\$0.0410	\$0.0372

† The price for Fuel and Purchased Power may be changed periodically consistent with Adjustment A.

ANCILLARY SERVICES:

Ancillary services provided include:

- 1) Scheduling, System Control and Dispatch Service
- 2) Reactive Supply and Voltage Control from Generation Sources Service
- 3) Regulation and Frequency Response Service
- 4) Energy Imbalance Service
- 5) Operating Reserve Spinning Reserve Service
- 6) Operating Reserve Supplemental Reserve Service

Direct access customers would need to secure ancillary services 3-6 from an alternate energy supplier or under the terms and conditions outlined in SRP's Open Access Transmission Tariff.

MINIMUM BILL:

The greater of:

A. The monthly service charge or

E-32 Page 4

Published: 11/1/2005

B. The minimum monthly dollar amount specified in a written Agreement for Electric Service, if any.

DETERMINATION OF DEMAND IN KILOWATTS:

The billing demand is the maximum thirty-minute integrated kilowatt demand occurring during the on-peak and shoulder-peak periods of the billing cycle, as measured by meter.

ADJUSTMENTS:

- A. SRP may increase or decrease the price for Fuel and Purchased Power based on changes in the average cost of fuel and purchased power. The price for Fuel and Purchased Power is calculated for each summer and winter season based on the projected cost of fuel and purchased power, adjusted for the actual over- or under-collection of fuel and purchased power revenues relative to fuel and purchased power expenses from prior periods.
- B. SRP may increase the Transmission Cost Adjustment Factor to recover transmission related costs or charges incurred by SRP resulting from standardized wholesale market designs, regional transmission organizations, or related activities.
- C. SRP increases or decreases billings under this schedule in proportion to any taxes, fees, or charges (excluding federal or state income taxes) levied or imposed by any governmental authority and payable by SRP for any services, power, or energy provided under this schedule.
- D. If the power factor falls below 85 percent lagging at any metering point during any billing period, SRP may:
 - 1. Adjust kilowatt-hours and/or kilowatts during this period, for billing purposes, to equal 85 percent of kilovolt-ampere-hours and 85 percent of kilovolt-amperes. Kilowatt-hours and/or kilowatts will be adjusted proportionately for the on-peak. shoulder-peak, and off-peak periods.
 - 2. Require the customer to correct the power factor to an acceptable level.
 - 3. Require the customer to be continuously metered with a separate meter that registers kilovolt-amperes, kilovars, or actual power factor.
 - At SRP's discretion, customer may be required to pay all costs associated with additional metering.
- E. If, at any time, the current in any phase exceeds the average of the currents in the three phases by more than 5 percent, at SRP's option, SRP may increase the bill for the period during which the imbalance occurs by a percentage equal to that of the imbalance.

E-32 Page 5

Published: 11/1/2005

- F. Customers participating in the 10-day SurePay Automatic Payment Program will receive a 1 percent discount on SRP services supplied under this price plan. The discount will be applied before adding sales tax. The discount does not apply to any penalties, fees, credits, or premiums. The discount will not apply to energy or services supplied by an alternative energy supplier.
- G. Customers within the SRP distribution service territory who receive all electric services from SRP under the E-32, E-36, E-47, E-48, E-61, E-63, or E-65 price plans who meet minimum usage requirements will receive an aggregation discount on their monthly bill(s).

Aggregation Discount = 0.0003/kWh

Single accounts meeting minimum usage levels can qualify for aggregation discounts.

Aggregate usage must meet a minimum usage requirement of 300,000 kWh per month for three consecutive months. Only those accounts receiving energy and delivery services from SRP will count towards the minimum usage requirements.

The discount will be applied only to kWh sold under the applicable price plan. The discount will be applied before the application of any credits, penalties, fees, or premiums.

H. For customers metered for billing purposes at primary voltage, SRP will deduct 1 percent of the demand and energy charges from each billing. Primary voltage is defined as the same voltage found at the low side of a substation transformer, typically 12.47 kV or 4,160 volts. The deduction does not apply to monthly service charges, facilities charges (where applicable), taxes, penalties, fees, or other adjustments.

RULES AND REGULATIONS:

- A. Service under this schedule is in accordance with the terms of SRP's Rules and Regulations, including any amendments.
- B. At SRP's request, Customer shall sign SRP's then-current form of Agreement for Electric Service as a condition of service under this price plan.
- C. For direct access customers, service under this schedule is in accordance with the terms of SRP's Direct Access Program, as set forth in the Rules and Regulations, including any amendments.

SPECIAL RIDERS:

A. Customers may choose to participate in SRP's Renewable Pricing Rider.

E-32 Page 6

Published: 11/1/2005

- B. Customers with cogeneration or small power production who purchase power and energy from SRP may qualify to sell power and energy back to SRP under the Buyback Service Rider.
- C. Customers with a minimum annual load of 100 kW and who have the flexibility to curtail load may qualify for service under the Use Fee Interruptible Rider.
- D. Customers with individual accounts or aggregated loads of 1 MW or more, who have energy alternatives and who are willing to sign a term contract, may qualify for service under the Full Electric Service Requirements Rider.
- E. Customers interested in receiving a verifiable market price for energy and who are willing to have their energy price per kWh change on a monthly basis, to reflect the electric energy market, may choose to participate in the Monthly Energy Index Rider.
- F. Customers may choose to participate in SRP's Renewable Pricing Rider for Large Customers.